

UNITED STATES PATENT AND TRADEMARK OFFICE  
CERTIFICATE OF CORRECTION

PATENT NO.: 6,979,539

DATED: July 04, 2006

INVENTOR(S): George Norbert Cox III; Casey Christopher Case; Stephen P. Eisenberg; Eric Edward Jarvis; Sharon Kaye Spratt

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Office initiated Certificate of Correction Memo

The following claims are corrected as follows (formatted by strikethrough of deleted text and underlining added text)

1. A method of inhibiting expression of an endogenous cellular pine gene in a cell, the method comprising the step of:

administering to the cell a nucleic acid molecule comprising a polynucleotide sequence which encodes a first engineered zinc finger protein, wherein

- (i) said polynucleotide sequence is operably linked to a promoter,
- (ii) the nucleic acid molecule expresses the zinc finger protein ~~is less in the~~ cell;
- (iii) the zinc finger protein contacts a first target site in the endogenous cellular gene; and
- (iv) the K<sub>sub</sub>d of the zinc finger protein is less than about 25 nM;

thereby inhibiting expression of the endogenous cellular gene.

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2. The method of claim 1 wherein the step of administering further comprises administering a second zinc finger protein-encoding nucleic acid operably linked to a promoter that expresses a second zinc finger protein in the cell, and wherein the ~~step~~ step of contacting ~~father~~ further comprises contacting a second target site in the endogenous cellular gene with the second zinc finger protein.

3. The method of claim 2, wherein the ~~flat was~~ first and second target sites are adjacent.

4. The method of claim 3, wherein the first and second zinc finger proteins are covalently linked, mimic forming a fusion protein.

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16. The method of claim 1, wherein the step of administering the nucleic acid molecule to the cell comprises administering the nucleic acid molecule in a lipid:nucleic acid complex or as naked nucleic acid.

18. The method of claim 17, wherein the expression vector is a viral expression vector.

19. The method of claim 18, wherein the expression vector is a retroviral expression vector, an aderoviral adenoviral expression vector, or an AAV expression vector.

20. The method of claim 18 wherein the promoter to which the zinc finger-encoding nucleic acid is operably linked is an inductable inducible promoter.

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29. A method of inhibiting expression of an endogenous cellular pine gene in a cell, the method comprising the step of: administering to the cell a nucleic acid molecule comprising a polynucleotide sequence which encodes a first engineered zinc finger protein, wherein

- (i) said polynucleotide sequence is operably linked to a promoter;
- (ii) the nucleic acid molecule expresses the zinc finger protein in the cell;
- (iii) the fusion zinc finger protein comprises six fingers and a regulatory domain;
- (iv) the fusion zinc finger protein contacts a target site in the endogenous cellular gene and;
- (v) the  $K_d$  of the zinc finger protein is less than about 25 nM;

thereby inhibiting expression of the endogenous cellular gene.

31. The method of claim 30, wherein the step of administering father further comprises administering a second zinc finger protein-encoding nucleic acid operably linked to a promoter that expresses a second zinc finger protein in the cell and wherein the step of contacting further

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comprises contacting a second target site ~~is~~ in the endogenous cellular gene with the second zinc finger protein.

45. The method of claim 30, wherein the step of administering the nucleic acid molecule to the cell comprises administering the nucleic acid molecule in a lipid:nucleic acid complex or as marked naked nucleic acid.

46. The method of claim 30, wherein the nucleic acid molecule is an expression vector comprising a zinc finger protein encoding nucleic acid operably linked to a promoter.

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49. The method of claim 47, wherein the promoter to which the zinc finger protein encoding by a nucleic acid is operably linked to an inducible promoter.
50. The method of claim 47, wherein the promoter to which the zinc finger protein encoding by a nucleic acid is operably linked is a weak promoter.
54. The method of claim 34 30, wherein the target site is adjacent to an RNA polymerase pause site, wherein the RNA polymerase pause site is downstream of a transcription initiation site of the endogenous cellular gene.